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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,287	02/11/2002	Teruko Fujii	2611-0173P	9532
2292	7590	09/30/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			CHANG, EDITH M	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	
			2637	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,287

Applicant(s)

FUJII ET AL.

Examiner

Edith M. Chang

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20020328
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figure 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. For the formality of the application under the present office practice, applicant(s) is required to replace "Claims" with "I or We Claim". "The Invention Claimed Is" (or the equivalent) before the Claims part of the specification of the instant application. See MPEP 608.01(m).

Claim Objections

3. Claims 1-17 are objected to because of the following informalities:

Art Unit: 2637

Claim 1, line 6; Claims 4-8 & 14-17, line 8; Claim 9-10, line 7; Claim 11, line 6: "transmission/reception" is suggested changing to "transmission or reception" or "transmission and reception".

Claim 1, line 7: "said communication device" should be "said communication devices"; line 11: "a carrier" should be "the carrier".

Claims 4-8 & 15, line 14: "a carrier" should be "the carrier".

Claim 7, line 16: "transmits data" should be "transmit the data"; line 19: "a first time elapses" is suggested changing to "the first time elapses"; line 20: "a second time elapses" is suggested changing to "the second time elapses"; line 25: "a transmission control unit" should be "the transmission control unit".

Claim 8, line 19: "a first time elapses" is suggested changing to "the first time elapses"; line 20: "a second time elapses" is suggested changing to "the second time elapses"; line 24: "a data" should be "the data"; line 25: "a transmission control unit" should be "the transmission control unit".

Claims 9-10, line 12: "a carrier" should be "the carrier".

Claim 10, lines 17-18: "a first time elapses until a second time elapses" is suggested changing to "the first time elapses until the second time elapses"; line 22: "a data" should be "the data".

Claim 11, line 11: "a carrier" should be "the carrier".

Claim 14, lines 14 & 22: "a carrier" should be "the carrier".

Claim 16, line 15: "a carrier" should be "the carrier".

Art Unit: 2637

Claims 2-3 and 12-13 are dependent on the objected claims 1 and 11 respectively.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5, 8 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 5, the master communication device transmits the data, transmits ACK data, and transmits the data delayed to the transmission line that is not disclosed in the drawings and not taught in the specification.

In claims 8 & 10, the master communication device transmits the data, transmits collision avoidance data and transmits the data whose priority is high, however this is not disclosed in the drawings and not taught in the specification.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2637

7. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 14: "the data" does not clearly indicate that it is "the data" as newly transmitted recited in line 12 claim 1 or the "a data" recited in line 15 claim 1 whose priority is high; lines 14-15: "the first time" lacks antecedent basis.

Claim 4, line 16: "the data" does not clearly indicate that it is "the data" as newly transmitted recited in line 15 claim 4 or the "a data" recited in line 17 claim 1 whose priority is high; lines 16-17: "the first time" lacks antecedent basis.

Claim 5, line 17: "the data" in "a reception confirmation of the data" does not clearly indicate that what "the data" that the master communication device received, it lacks antecedent basis; lines 18 & 19: "the first time" lacks antecedent basis; lines 20-21: "when receiving a data that has been relayed" does not clearly indicate that which device receiving a data that has been relayed; line 21: "a data that has been delayed" does not clearly indicate that it is another data different from the data recited in lines 18-19 claim 5 that has been delayed.

Claim 6, line 19: "the data" does not clearly indicate that which or what is "the data"? "the data" newly transmitted recited in line 15 claim 6, "the data" relayed recited in line 16 claim 6, or other data; lines 17-18: "repeating processing in which the master communication device transmits ACK data..." is indefinite that it does not clearly indicate the limit of the repeating, how many times of the repeating or when the repeating stops; lines 20, 22 & 24: "the first time" lacks antecedent basis.

Art Unit: 2637

Claim 7, lines 10 & 15-16: "the communication device" lacks antecedent basis; line 20: "a carrier signal" does not clearly indicate that which or what is the "a carrier signal", as a carrier signal (collision avoidance) recited in lines 17-18 claim 7 or as a carrier signal (another communication device) recited in lines 6-7 claim 7; lines 21-22, 26-27 & 29: "the multi-address data" lacks antecedent basis; line 28: "the first time" lacks antecedent basis.

Claim 8, lines 10 & 15-16: "the communication device" lacks antecedent basis; line 20: "a carrier signal" does not clearly indicate that which or what is the "a carrier signal", as a carrier signal (collision avoidance) recited in lines 17-18 claim 8 or as a carrier signal (another communication device) recited in lines 6-7 claim 8; line 22: "the first time" lacks antecedent basis; line 28: "the first time" lacks antecedent basis.

Claim 9, line 15: "the first time" lacks antecedent basis.

Claim 10, line 18: "a carrier signal" does not clearly indicate that which or what is the "a carrier signal", as a carrier signal (collision avoidance) recited in lines 15-16 claim 10 or as a carrier signal (another communication device) recited in line 5 claim 10.

Claim 11, line 16: "the first time" lacks antecedent basis.

Claim 14, line 28: "the first time" lacks antecedent basis.

Claim 15, line 22 & 27: "the first time" lacks antecedent basis.

Claim 16, lines 24, 29 & 32: "the first time" lacks antecedent basis.

Claim 17, lines 23, 29 & 32: "the first time" lacks antecedent basis.

Claims 2-3 and 12-13 are dependent on the rejected claims 1 and 11 respectively.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 1-3, 9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji et al. (JP 61-071738) in view of Matsui et al. (US 4,672,543).

Regarding **claims 1, 9 & 11**, in FIG.1, Kenji et al. discloses a data transmission system with its method comprising multiple devices 2 connected to a transmission line 1, wherein each device of the multiple devices 2 including a transmission control unit 4 & 6. The device 2 transmits data at T3 having relation of $T1 < T3 < T2$ (Abstract, lines 5-6), wherein T1 period is the *second time elapses* and T2 period is the *first time elapses* (Abstract, lines 1-3) and T3 does not have a fix pattern (randomly), enabling the data transmission, allowing a terminal equipment at the transmission side to count after data transmission (the *carrier signal is gone*, lines 3-4 Abstract) so as to confirm the transmission of data to a destination (avoid collision, lines 5-6 Abstract). However, Kenji et al. does not explicitly specify the high priority data.

Matsui et al. teaches the high priority data, ACK, RACK and NRDY (FIG.7 & 8, column 8, lines 63-68 '543) that the terminal transmits after the data and the ACK, RACK or NRDY (the priority data) transmitted by other terminal are gone on the transmission line in FIG.13. As Kenji et al.'s device issuing a command of answer back

Art Unit: 2637

(Abstract, lines 7-8 JP '738), at the time of the invention was made, it has been obvious to one of ordinary skill in the art to have the high priority data taught by Matsui et al. in Kenji et al.'s system to handle error packets processing (column 3, lines 15-20 '543) in order easily preventing packet collision (column 3, lines 10-14 '543).

Regarding to **claims 2 & 12**, the modified/combined system has the ACK as the high priority data to confirm a reception (column 8, lines 61-63 '543).

Regarding to **claims 3 & 13**, the modified/combined system has the NRDY as the NACK high priority data to represent a non-reception confirmation (column 8, lines 66-68).

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gaishi (JP 59-100655) in view of Kenji et al. (JP 61-071738).

Regarding to **claim 4**, in FIG.1, FIG.2 and FIG.4, Gaishi discloses a master station (or device) 3 and other slave devices 2 in a star type that the slave device has an identifier set in the circuit 4 to identify the signal sent by the slave device (Abstract, lines 7-8) and the receiver circuit 6 discriminates that the identifier (address) of the received signal is for the slave device (Abstract, lines 10-12). The master station 3 has a transmitter circuit 9 (FIG.4) to transmit data with the slave device identifier/address on the line 1 to the slave devices 2 and a receiver circuit 10 (FIG.4) to receive signals with the slave device identifiers from the slave devices 2 (FIG.1).

However, Gaishi does not explicitly specify the first and the second time elapses, Kenji et al. teaches a transmission time T_3 having a relation of $T_1 < T_3 < T_2$ (Abstract,

Art Unit: 2637

lines 5-6), wherein T1 period is the *second time elapses* and T2 period is the *first time elapses* (Abstract, lines 1-3) and T3 does not have a fix pattern (randomly). As Gaishi transmitting a signal after a certain time is elapsed from the time when the signal supplied from a signal source is not transmitted (Abstract, lines 2-4 JP '655) to prevent interference and to improve the transmission speed (Abstract, lines 1-2 JP '655), at the time of the invention was made, it has been obvious to one of ordinary skill in the art to have the data transmitting technique taught by Kenji et al. in Gaishi's stations to efficiently avoid collision by setting transmit time T3 as taught by Kenji et al.

Allowable Subject Matter

11. Claims 6-7 and 14-17 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and overcome the objections set forth in this Office action.

12. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest, alone or in a combination, among other things, at least a communication system comprising a plurality of communication devices with a master communication device and other slave communication devices for a star-type connection and its methods as a whole, the combination of elements and features, which includes the master device and transmitting data at a random time randomly representing a time existing after a first time elapses until a second time elapses form a time when the carrier signal on the transmission line is gone,

Art Unit: 2637

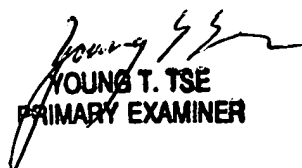
transmitting ACK data when receiving multi-address data relayed, and transmitting the multi-address data relayed as recited in the claims.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M. Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay K. Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang
September 27, 2005


YOUNG T. TSE
PRIMARY EXAMINER